

12, 22, 32, 42. DRIVING CIRCUIT
52. CENTRAL PROCESSOR
13. MAIN SHAFT ROTARY SWITCH
15. SPEED SIGNAL GENERATOR
23. ROUGHING TOOL FEED

FIG. 2A

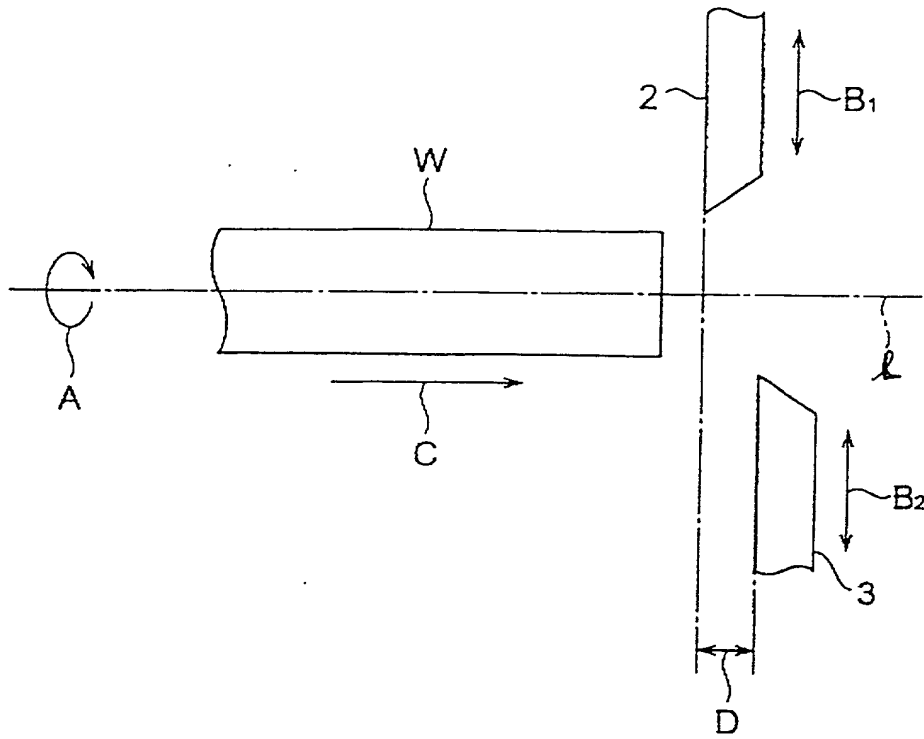


FIG. 2B

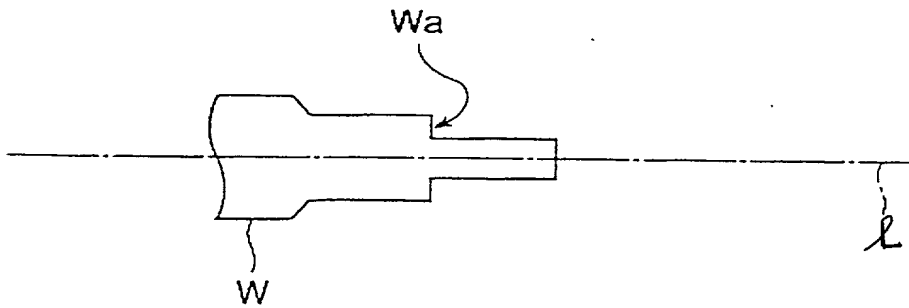
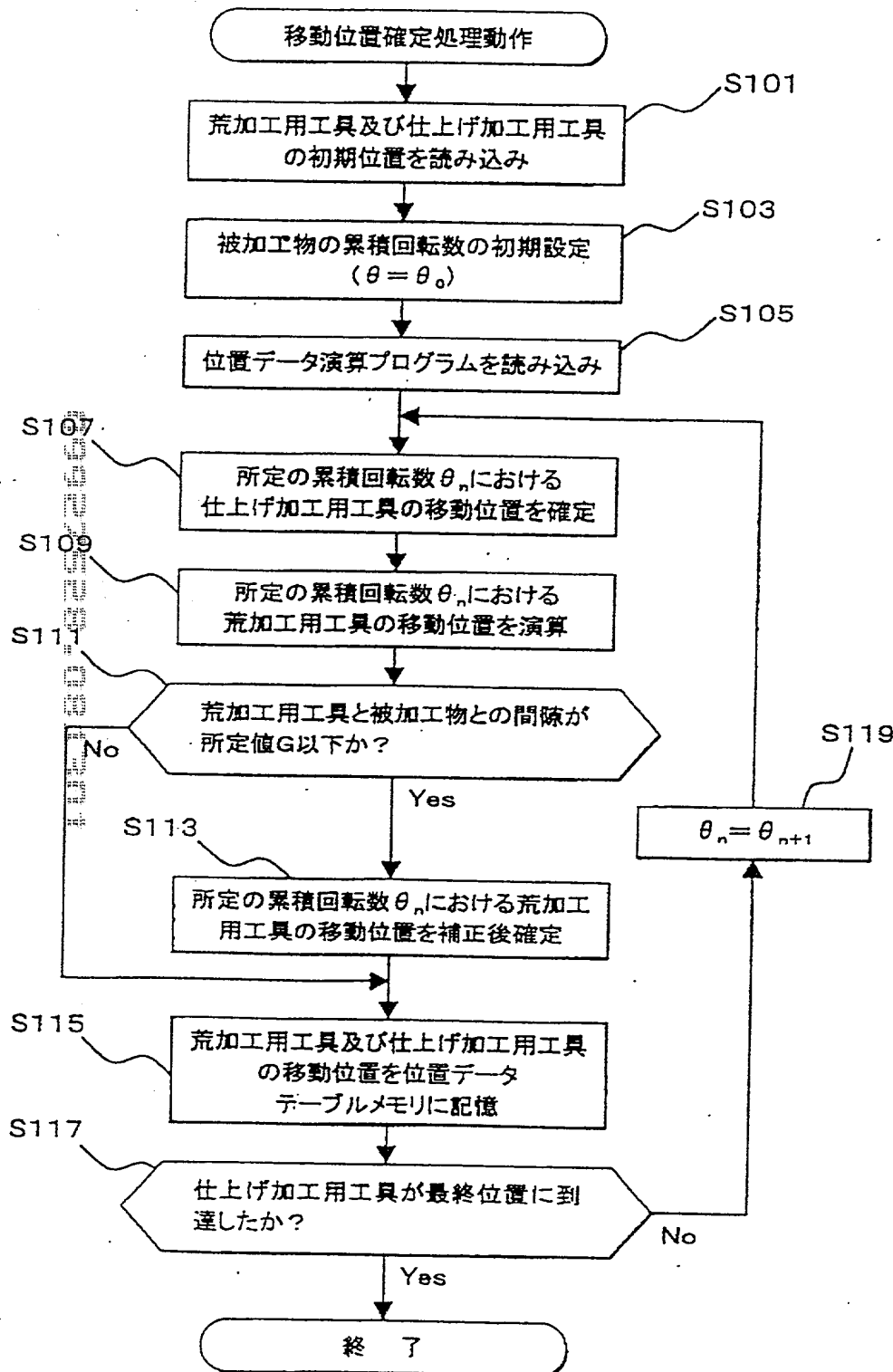
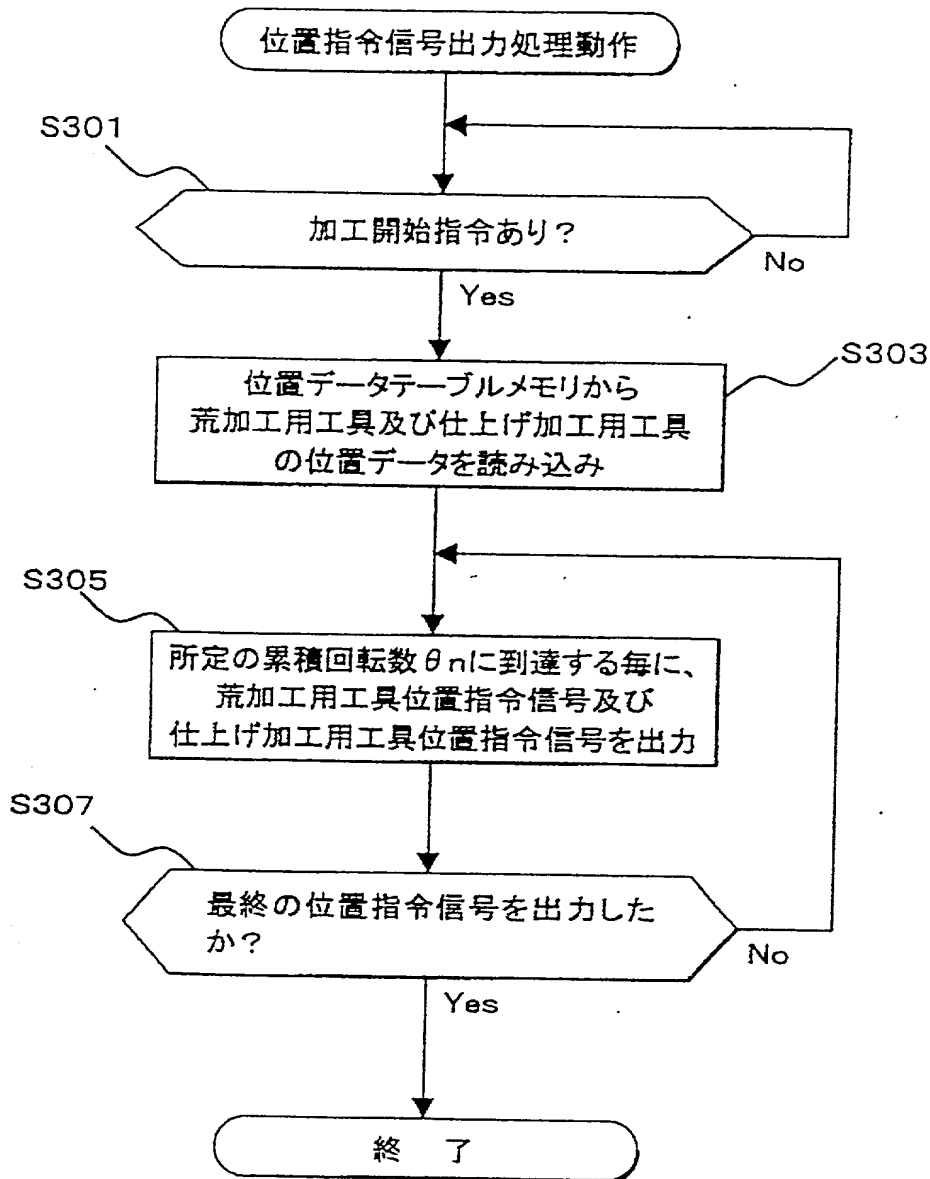


FIG. 3



S101: READ IN INITIAL POSITIONS OF ROUGHING TOOL AND FINISHING TOOL
 S103: INITIALIZE SETTING OF ACCUMULATION NUMBER OF ROTATION OF WORK PIECE ($0 = \theta_0$)
 S105: READ IN POSITION DATA CALCULATION PROGRAM
 S107: SETTLE MOVEMENT POSITION OF FINISHING TOOL IN A PREDETERMINED ACCUMULATION NUMBER OF ROTATION θ_n
 S109: CALCULATE MOVEMENT POSITION OF ROUGHING TOOL IN A PREDETERMINED ACCUMULATION NUMBER OF ROTATION θ_n
 S111: IS GAP BETWEEN ROUGHING TOOL AND WORK PIECE NOT LARGER THAN A PREDETERMINED VALUE G?
 S113: CORRECT AND SETTLE MOVEMENT POSITION OF ROUGHING TOOL IN A PREDETERMINED ACCUMULATION NUMBER OF ROTATION θ_n
 S115: STORE MOVEMENT POSITION OF ROUGHING TOOL AND FINISHING TOOL IN POSITION DATA TABLE MEMORY
 S117: FINISHING TOOL REACHES FINAL POSITION?
 S119: $\theta_n = \theta_{n+1}$

FIG. 4

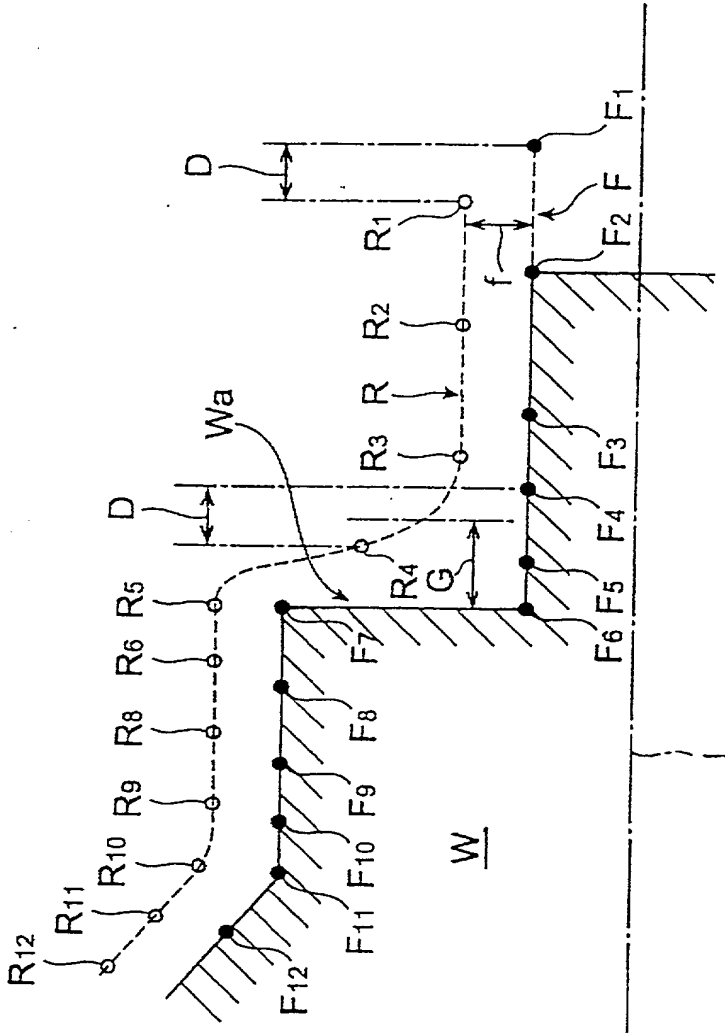


S301: IS THERE PROCESSING START COMMAND ?

S303: READ IN POSITION DATA OF ROUGHING TOOL AND FINISHING TOOL FROM POSITION DATA TABLE MEMORY

S305: OUTPUT ROUGHING TOOL POSITION COMMAND SIGNAL AND FINISHING TOOL POSITION COMMAND SIGNAL EVERY TIME WHEN THE NUMBER OF ROTATION REACHES A PREDETERMINED ACCUMULATION NUMBER OF ROTATION θ_n

S307: IS FINAL POSITION COMMAND SIGNAL OUTPUTTED ?



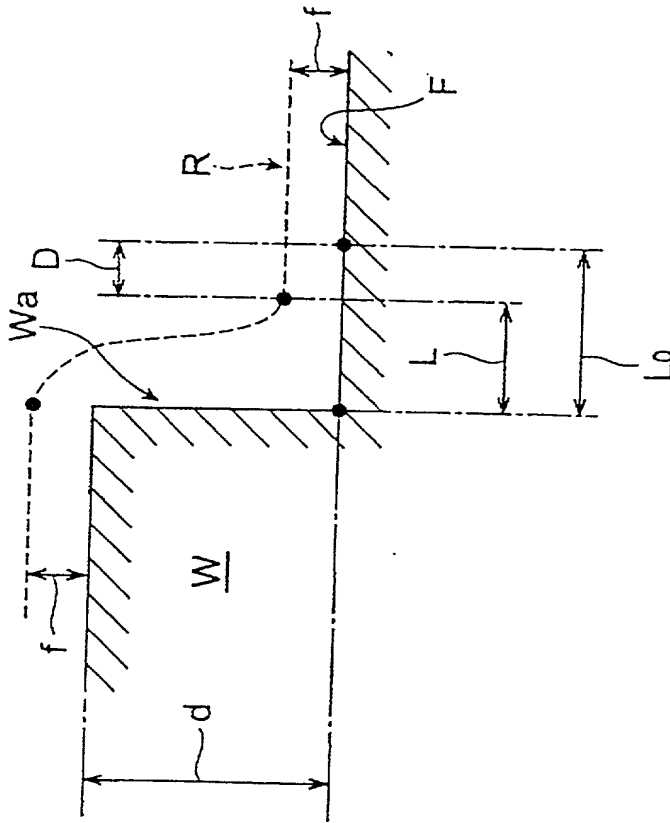


FIG. 6

FIG. 7A

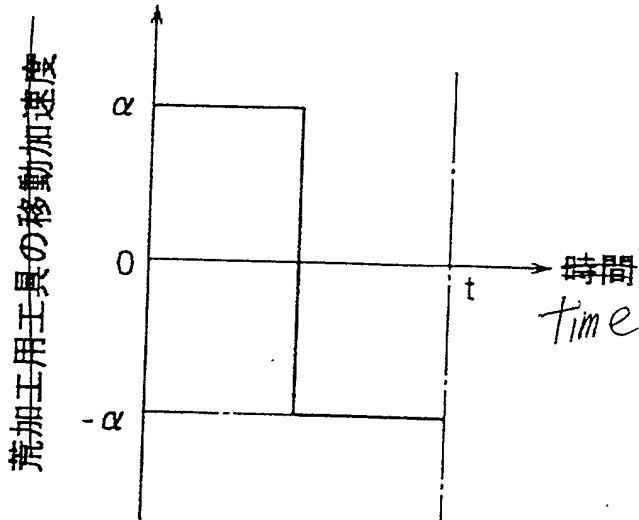
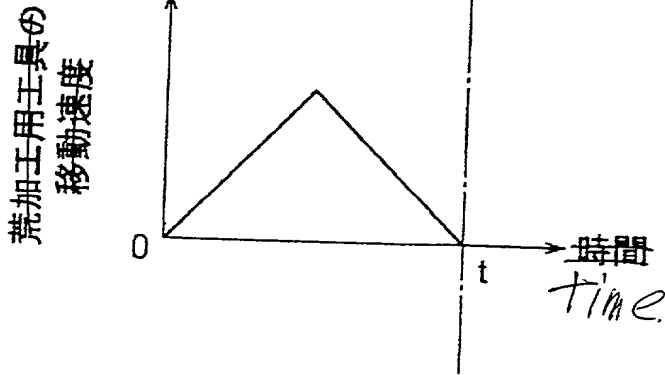


FIG. 7B



Tool path of movement speed of roughing tool

movement ac